

COW COMFORT

By Julie Berry

Deep bedded stalls and liberal use of manure solids for bedding increase lying time.

Manure Solids in Deep Beds Boost Comfort

Van Slyke's Dairy Farm LLC in Pike, NY converted to a manure separation system and manure fiber for bedding with the return of the seventh generation. Ken Van Slyke had worked on another farm with a manure separation system and for a manufacturer of the bedding system.

"I had a good knowledge base on how to implement it on a dairy and have seen a number of operations in North America and internationally," Van Slyke said. Van Slyke is in partnership of the 1,200-cow dairy with his parents Gary and Ginny Van Slyke, his aunt and uncle Greg and Connie Van Slyke, and Greg's oldest daughter, Tammy Andrews. "My wife, Tonya and I both grew up on farms and knew we wanted to give our boys that opportunity."

Manure in the alley is scraped to the pit. It is transferred every day by pump to a separator barn. The separation system removes manure fiber used for bedding. The pit feeds the bedding recovery unit 24-7. Material spends 18 to 24 hours in the drum. Once out of the drum, it's conveyed to a pile, which is used completely every day. The liquid fraction is field applied. Solids are spread in neighbor sensitive areas and nutrient-depleted fields. Bag and whole-sale compost is retailed at the farm and garden cen-

Ken Van Slyke,
Van Slyke's Dairy
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ters under the name "Bessie's Best® Compost."

Cow comfort was improved with manure fiber for bedding. "It's a softer, nicer material, and is more accepted by the cows than sawdust. "Because it's 'free' we bed more often." At each milking bedding is removed from the back of the stalls, and clean bedding is drawn from the brisket back.

The Van Slyke's also changed 200 stalls, with a 1995 system of planks over crushed stone that had rotted, to deep bedded stalls. Stall dimensions were not changed. "We noticed an immediate improvement in lying time and moved the high producing cows to those stalls," Van Slyke said. "I've always felt solids were a close second to sand for comfort." Deep beds are cleaned by hand every milking, and are raked daily with a sand stall-type groomer.

Because manure is quickly converted to the fiber solids that are used as bedding, cows are not exposed to new pathogens, Van Slyke said. "However imperfect manure fiber is for pathogen load, we aren't introducing anything foreign to the cow's environment like with purchased sawdust."

Since the conversion, the herd has improved in somatic cell and milk quality. Cows are cleaner. Milking management was also "stepped up."

The entire herd may be converted to deep-beds. Curt Gooch, PRO-DAIRY, has provided leg data loggers to monitor lying time. "We value his experience and suggestions as we consider stall dimensions, lighting and ventilation," Van Slyke said.

The farm has rubber mats in the parlor, return area and holding areas. Alley scrapers were removed, which improved cow cleanliness, but cows stand longer during alley cleaning, so scrapers may return. Ventilation and temperature are considered, and fresh cows receive priority. Fans are used all year and an outside row will receive fans. Sprinklers in the holding area are activated when the temperature reaches 65 degrees. Barns are insulated, which keep cows cool. Milk only drops significantly when temperature doesn't cool at night. Impact of lighting is also being considered, and barns may be converted from cold fluorescent to LED lights. □